



HP VCX Connect 200 Unified Communications Series

Data sheet

Product overview

HP VCX Connect 200 Unified Communications Series delivers an enterprise-class, full-featured VoIP phone system designed to cost-effectively meet the rugged, collaborative work environments of small- to medium-sized enterprises. Utilizing an extremely resilient architecture, VCX Connect 200 ensures highly available, high-performance telephony and desktop communications. For organizations with up to 500 phone users, VCX Connect 200 offers an economical IP telephony and messaging solution that delivers advanced features and unified communications. The platform's flexible, intuitive design and management help businesses replace legacy PBXs with SIP-based VoIP solutions that provide a full range of collaborative functionality—including click-to-call, presence, instant messaging, mobility, and unified voicemail/email messaging. Support for standalone VCX V7111, VCX V7122, MSR 20-xx, and MSR 30 Series analog, ISDN, and digital gateways are available as well to complement a solution.

Key features

- Cost-effective, enterprise-class VoIP platform
- Built-in phone, messaging, and softphone licenses
- Resiliency with optional redundant server
- Voice, video, IM collaboration
- Support up to 3,000 users w/6 networked servers



Features and benefits

Resiliency and high availability

- **Enhanced high availability:** optional backup VCX systems, whether co-located with the primary VCX or deployed in another office on the same network, provide geographic survivability and rapid failover for mission-critical communications
- **Optional RAID disk:** helps ensure resiliency in the event of component failure

Configuration

- **Media gateway support:** streamlines migration to IP communications and provides PSTN connectivity with a full range of standalone VoIP gateways

Investment protection

- **Analog phone support:** leverage existing investment in analog phones while implementing a full set of PBX features

Ease of use

- **Built-in licensing:** VCX system ships with default licenses—VCX IP Telephony/IP Messaging Server license, 25 business phone licenses, 25 IP messaging seat licenses, 25 Desktop Communicator softphone licenses, 25 Convergence Client softphone licenses, and 4 analog/entry licenses
- **LDAP synchronization with Microsoft® Active Directory, IBM Lotus Domino, Linux OpenLDAP:** easily integrate, filter, and synchronize employee contact information, thereby simplifying administration and ensuring reliable connections based on the most current user information
- **Ease of deployment:** VCX Connect 200's out-of-the-box first-time configuration provides simpler installations using a Web-based, wizard-like interface that walks you through the installation process
- **Easy to use:** GUI-driven central management and configuration

Scalability

- **Supported devices:** pay as you grow up to 500 devices per platform and up to 3000 devices in total via VCX global directory, which enables up to six VCX Connect 200 platforms to function as a single system

Additional information

- **Optional mobility for telecommuters:** optional HP VCX IP Telecommuting Module allows remote users the full benefit of their corporate IP telephony system without compromising security
- **Optional multimedia conference bridge:** when businesses require a dense conferencing system to reduce the overhead and cost of expensive third-party conferencing products, then the HP VCX IP Conferencing Module is the choice; capabilities include host and participant Web-based conference controls, instant and emergency conferences with automatic dial-out options, scheduled and meet-me restricted conferences (requires participant passcode), peer-to-peer and one-to-many conferences, and more
- **Optional network management:** use the HP Intelligent Management Center (IMC) and Voice Services Manager (VSM) to configure, monitor, and optimize the performance of media servers, gateways, and endpoints; to monitor VoIP traffic; and to control voice network quality

Product architecture

- **Multi-site architecture:** highly flexible architecture eliminates the dependency on any single component for unprecedented resiliency and end-to-end survivability; use Web-based centralized administration, global directory, and global voicemail to seamlessly link VCX systems together to scale your IP-PBX network as your business grows
- **Standards-based IP-PBX:** support for standard PBX and advanced telephony and messaging features based on the IETF Session Initiation Protocol (SIP) standards; support for third-party SIP-based applications and devices
- **Integrated server:** IP telephony and IP messaging modules run on Linux OS

Technical features

- **Ad hoc conferencing:** VCX Connect 200 supports up to 30 sessions of ad hoc conferencing with a maximum of six parties per conference
- **Shared lines and extension status:** single-line and multi-line phone support and bridged extensions for executives and administrators

User productivity

- **Unified Communications:** increase employee collaboration thru the audio, video, instant messaging, file sharing, and presence capabilities within the HP Desktop Communicator; extend the Microsoft environment with HP Desktop Communicator Outlook Edition add-on to enable click-to-call/conference via Microsoft Outlook, to capture and retrieve call notes with Microsoft Journal, and to perform desktop call recording; HP VCX is fully integrated with Lotus Sametime
- **Unified Messaging:** consolidate users' voicemail, email and faxes into a single inbox for flexible, location-independent retrieval and management; schedule appropriate times when messages are delivered; send voicemails to individuals or groups using extensive and easy-to-maintain distribution lists; set up find me/follow me services to conveniently manage one's own anywhere, anytime access to ensure important calls are never missed; auto-deliver incoming fax calls to email and send fax from email
- **Web user interface:** listen to and manage voicemail messages

Voice functionality

- **Hot desking:** users can effortlessly traverse within the VCX system, log into another handset, and have all their desktop extension settings, including voicemail, at their fingertips
- **Call admission control:** fine-tune and throttle media traffic to prevent VoIP over-subscription—even down to a particular extension
- **Pin codes:** prevent unauthorized outbound dialing and/or manage and record telephony calls via forced account codes and customer account and billing codes; pin code portability allows users to roam the VCX system and utilize their existing data
- **Hunt groups:** built-in call distribution provides agent log-in functionality; support for 3 selectable call routing algorithms

- **Automatic call distribution:** add-on economical call center application that includes 5 selectable routing algorithms, the ability to capture real-time statistics, and support for remote agents in various VCX locations

Warranty and support

- **1-year warranty:** with advance replacement and 30-calendar-day delivery (available in most countries)
- **Electronic and telephone support:** limited electronic and telephone support is available from HP; refer to www.hp.com/networking/warranty for details on the support provided and the period during which support is available
- **Software releases:** refer to www.hp.com/networking/warranty for details on the software releases provided and the period during which software releases are available for your product(s)
- **Media warranty:** removable media on which HP distributes the software is warranted for ninety (90) days from purchase

HP VCX Connect 200 Unified Communications Series

Specifications



	HP VCX Connect 200 Unified Communications Primary Server (JC518A)	HP VCX Connect 200 Unified Communications Secondary Server (JC519A)
Ports	<p>4 SATA hard drive bay slots</p> <p>2 RJ-45 auto-sensing 10/100/1000 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3ab Type 1000Base-T); Duplex: 10Base-T/100Base-TX: half or full; 1000Base-T: full only</p> <p>6 USB 2.0</p> <p>1 Serial port</p>	<p>4 SATA hard drive bay slots</p> <p>2 RJ-45 auto-sensing 10/100/1000 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3ab Type 1000Base-T); Duplex: 10Base-T/100Base-TX: half or full; 1000Base-T: full only</p> <p>6 USB 2.0</p> <p>1 Serial port</p>
Physical characteristics		
Dimensions	27.56(d) x 17.64(w) x 1.69(h) in. (70 x 44.81 x 4.29 cm) (1U height)	27.56(d) x 17.64(w) x 1.69(h) in. (70 x 44.81 x 4.29 cm) (1U height)
Weight	38 lb. (17.24 kg) shipping weight	38 lb. (17.24 kg) shipping weight
Memory and processor		
Processor	Intel® Xeon® X3430 (4 core) @ 2400 MHz; 2 GB DDR3 DIMM; storage: 3.5" 250 GB SATA HDD	Intel® Xeon® X3430 (4 core) @ 2400 MHz; storage: 3.5" 250 GB SATA HDD; 2 GB DDR3 1066 MHz ECC UDIMM; packet buffer size: 1 KB
Mounting	Mounts in EIA-standard 19 inch telco rack or equipment cabinet (hardware included)	Mounts in EIA-standard 19 inch telco rack or equipment cabinet (hardware included)
Environment		
Operating temperature	50°F to 90°F (10°C to 32°C); at sea level with an altitude derating of 1.0°C per every 305 m (1.8°F per every 1000 ft) above sea level	50°F to 90°F (10°C to 32°C); at sea level with an altitude derating of 1.0°C per every 305 m (1.8°F per every 1000 ft) above sea level
Operating relative humidity	10% to 90% @ 82.4°F (28°C), non-condensing	10% to 90% @ 82.4°F (28°C), non-condensing
Non-operating/Storage temperature	-22°F to 149°F (-30°C to 65°C)	-22°F to 149°F (-30°C to 65°C)
Non-operating/Storage relative humidity	5% to 95% @ 101.7°F (38.7°C), non-condensing	5% to 95% @ 101.7°F (38.7°C), non-condensing
Altitude	up to 10,000 ft. (3 km)	up to 10,000 ft. (3 km)
Electrical characteristics		
Voltage	100-240 VAC	100-240 VAC
Power output	400 W	400 W
Frequency	50 / 60 Hz	50 / 60 Hz
Notes	Supports 90-264 VAC @ 47-63 Hz; maximum peak power 430 W	Supports 90-264 VAC @ 47-63 Hz; maximum peak power 430 W
Safety	IEC 60950-1; EN 60950-1	IEC 60950-1; EN 60950-1
Emissions	FCC part 15 Class A; CISPR 22; EN 55022; EN 55024; CNS 13438; ICES-003; EN 61000-3-2; EN 61000-3-3	FCC part 15 Class A; CISPR 22; EN 55022; EN 55024; CNS 13438; ICES-003; EN 61000-3-2; EN 61000-3-3
Management	IMC - Intelligent Management Center; command-line interface; Web browser; SNMP Manager; HTTPS	IMC - Intelligent Management Center; command-line interface; Web browser; SNMP Manager; HTTPS
Notes	Integrated IP Messaging Voice Ports; up to 120 simultaneous auto-attendant, music-on-hold, fax, or voicemail ports supported Support for standalone VCX V7111, VCX V7122, MSR 20-xx, and MSR-30 Series analog, ISDN, and digital gateways	Integrated IP Messaging Voice Ports; up to 120 simultaneous auto-attendant, music-on-hold, fax, or voicemail ports supported Support for standalone VCX V7111, VCX V7122, MSR 20-xx, and MSR-30 Series analog, ISDN, and digital gateways
Services	<p>3-year, parts only, global next-day advance exchange (UW162E)</p> <p>3-year, 4-hour onsite, 13x5 coverage for hardware (UW163E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware (UW166E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UW169E)</p> <p>3-year, 24x7 SW phone support, software updates (UW172E)</p> <p>4-year, 4-hour onsite, 13x5 coverage for hardware (UW164E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware (UW167E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UW170E)</p> <p>4-year, 24x7 SW phone support, software updates (UW173E)</p> <p>5-year, 4-hour onsite, 13x5 coverage for hardware (UW165E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware (UW168E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UW171E)</p> <p>5-year, 24x7 SW phone support, software updates (UW174E)</p> <p>3 Yr 6 hr Call-to-Repair Onsite (UW175E)</p> <p>4 Yr 6 hr Call-to-Repair Onsite (UW176E)</p> <p>5 Yr 6 hr Call-to-Repair Onsite (UW177E)</p> <p>Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.</p>	<p>3-year, parts only, global next-day advance exchange (UW162E)</p> <p>3-year, 4-hour onsite, 13x5 coverage for hardware (UW163E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware (UW166E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UW169E)</p> <p>3-year, 24x7 SW phone support, software updates (UW172E)</p> <p>4-year, 4-hour onsite, 13x5 coverage for hardware (UW164E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware (UW167E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UW170E)</p> <p>4-year, 24x7 SW phone support, software updates (UW173E)</p> <p>5-year, 4-hour onsite, 13x5 coverage for hardware (UW165E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware (UW168E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UW171E)</p> <p>5-year, 24x7 SW phone support, software updates (UW174E)</p> <p>3 Yr 6 hr Call-to-Repair Onsite (UW175E)</p> <p>4 Yr 6 hr Call-to-Repair Onsite (UW176E)</p> <p>5 Yr 6 hr Call-to-Repair Onsite (UW177E)</p> <p>Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.</p>

Specifications (continued)

Features

SYSTEM

Ad hoc conferencing
Centralized management
Call detail records
Converged application based architecture
Emergency services
End-to-end SIP signaling
Global directory
Global voice mail
IP telephony
IP unified messaging
Linux operating system with additional security
SIP back-to-back user Agent
Standards-based connectivity
System redundancy
Web services SDK

RESILIENCY

Redundancy, IP telephony
Redundancy, IP messaging
Redundancy, IP phones and media gateways
Redundancy, optional RAID
Redundancy, optional power supply

SYSTEM ADMINISTRATION

Add VCX licenses
Administration access control
Administration secure access
Audit trails and logging enhancements
Command Line Interface
Configuration back-up and restore
CPU, memory, I/O statistics
First-time configuration
First-time data import
Importing data
Installed component versions
Multiple administrators
Multiple language support
Online administrator help
Password support, administrator and system access
Provisioning; bulk moves, adds, changes
Remove previous software versions
Resetting a VCX server
Reset to defaults
Root directory access
Searches
Site configuration data
Software upgrades and rollbacks
Switch software versions
System information
User data LDAP synchronization: Lotus Domino running on IBM; Lotus Domino running on Windows® Server 2003, 2008; Microsoft Active Directory on Windows Server 2003, 2008;
OpenLDAP on Linux
VCX service licensing
View VCX licensing data
Virtual numbers

QUALITY OF SERVICE

DSCP tagging
Dynamic jitter buffer
G.711 audio codec
G.729ab audio codec
Packet-loss rate
Pay-load length
QoS: 802.1p tagging (Prioritization)
QoS: 802.1Q tagging (VLAN)
Video codec
Video resolution
Wide-band audio codec

SECURITY

Network security policies
Operating system security
Secure access
Security: locking MAC addresses to switches
User authentication methods

SYSTEM MANAGEMENT

Alarm notification
Audio performance reporting (local)
Auto discovery and management of IP devices

Intelligent Management Center Voice Service Manager: centralized management
Maintenance, graceful shutdown of services
Operating system updates
Quality of service end of call reporting
SNMP MIB access
SNMP traps
SNMP v1, v3
System back-ups

REPORTING

Call detail records (reporting)
Call detail records (structure)

IP TELEPHONY CALLING

Anonymous all
Anonymous next
Anonymous call reject
Automatic call distribution (ACD)
ACD groups (call coverage)
ACD groups (calling groups)
ACD groups (CDR reporting)
ACD groups (circular)
ACD groups (feature interactions)
ACD groups (least-call count)
ACD groups (linear)
ACD groups (login/logout)
ACD groups (malicious call trace)
ACD groups (message-waiting indication)
ACD groups (most idle agent)
ACD groups (multisite)
ACD groups (real-time statistics)
ACD groups (view ACD group status)
Automatic line selection (Multiple system appearance)
Bridged line appearance
Bridge line appearance (MWI)
Bridge line appearance (shared hold)
Busy lamp field
Call conference (drop)
Call conference (six-way calling)
Call conference (three-way calling)
Call coverage
Call drop
Call duration display
Call forward all (universal)
Call forward busy
Call forward no answer
Call forward out-of-coverage
Call forward programmable
Call forward reminder
Call forward remote
Call history (missed/answered/placed logs)
Call history display sort
Call hold
Call hold reminder
Call park/retrieve
Call park (button mapping)
Call park (fallback)
Call pick-up (directed)
Call pick-up (group)
Call restrictions (black list)
Call restrictions (blocking inbound)
Call restrictions (blocking outbound)
Call restrictions (call screening)
Call restrictions (forward to trunk)
Call restrictions (toll screening)
Call restrictions (transfer to trunk)
Call restrictions (white list)
Call return
Call transfer (attended)
Call transfer (fallback on transfer failure)
Call transfer (unattended)
Call transfer (restrictions)
Call waiting
Caller ID (called party)
Caller ID (calling party number)
Caller ID (calling party name)
Caller ID (privacy)
Camp on busy (automatic call back)
Class of service override
Customer account and billing codes

Delayed or no ringing
Directory (local user)
Directory (global user)
Distinctive ringing, ring patterns (different call types)
Distinctive ringing, selective ringing (ident-a-call)
Do not disturb
DTMF dialing
Feature codes
Feature access codes
Forced account codes
Forward to mail
Hands-free support
Hotline (hot ring down circuits)
Hunt groups
Hunt groups (call coverage)
Hunt groups (calling group)
Hunt groups (circular)
Hunt groups (feature interactions)
Hunt groups (linear)
Hunt groups (login/logout)
Hunt groups (malicious call trace)
Hunt groups (message-waiting indication)
Hunt groups (multisite)
Hunt groups (view hunt group status)
Last number redial
Malicious call trace
Message-waiting indication (MWI), audio
Message-waiting indication (MWI), visual
Missed call indicator
Mobility (multisite hot desking)
Mobility (single-region hot desking)
Music on hold
Mute
Paging (analog external paging system)
Paging (group - zone)
Paging (phone-to-phone), send beep with calling number
Paging (SIP external paging system)
Phone lock/unlock
Privacy (block silect monitor/charge-in)
Privacy (calling number suppression)
Serial calling (transfer with callback)
Silent monitor/charge-in
Simultaneous Ringing
Speed dial (personal)
Speed dial (system)
Transfer to voicemail (direct)
Voicemail access
Warmline (warm ring down circuits)

IP TELEPHONY ROUTING

Calendar bands
Call admission control
Call blocking
Daytime bands
Dialing prefixes
Direct Inward Dialing (DID)
Direct Outward Dialing (DOD)
DNIS (Dialed Number Identification Service)
E.164 numbering plan
External directory access
Holidays
NANP support
Network abbreviated dialing
Number translations
Outdial patterns
Patterns
Prioritization of trunks/routes
Private line service
Requestors
Routes
Route (plans and plan wizard)
Routing (alternate)
Routing (blacklist)
Routing (call coverage)
Routing (first available)
Routing (global directory)
Routing (IP to PSTN)
Routing (IP to IP)
Routing (least cost)
Routing (PSTN to IP)
Routing (source based)

HP VCX Connect 200 Unified Communications Series

Specifications (continued)

Features

Routing (VPN numbering plan)
Routing (white list)
Trusted end points
Weekday bands

IP MESSAGING ARCHITECTURAL

G.711
G.729
Global voice mail central server
Redundancy (intelligent mirroring)

IP MESSAGING

Message annotation
Message append
Message auto-delivery
Message auto playback
Message broadcast
Message delete
Message delete retrieval
Message delivery report
Message delivery to non-subscribers
Message deposit
Message deposit treatment options
Message folders
Message forward
Message notification
Message notification options
Message priority
Message record options
Message reply
Message retrieval
Message review
Message review options
Message review playback controls
Message save
Message schedule delivery
Message send
Message send treatment options
Mailbox login

GREETING

Default system greeting
Personal busy greeting
Personal extended absence greeting
Personal normal greeting
Personal scheduled greetings

DISTRIBUTION LIST

Administrator distribution lists

Personal distribution lists
System distribution lists

DIRECTORY

Directory search
Directory search (dial-by-name)

USER PRODUCTIVITY

Auto attendants
Bulletin board
Call back
Call monitor
Family mailbox
Force password change
Listen and manage voicemail messages from Web user interface
Mailbox alias
Mailbox auto login
Mailbox full alert
Mailboxes for announcements
Mailboxes for forms (Q&A)
Mailboxes for information
Mailboxes for surveys
Mailboxes for system bulletins/broadcasts
Message-waiting indication
Music-on-hold
Outline help
Personal address book
Personal auto-attendant
Privacy
Prompt bypass
Set-up assistant tutorial
Shortcut keys
User password change
User provisioning through TUI
User provisioning through Web
Virtual calling card
Zero out

FIND ME/FOLLOW ME

Find me/follow me
Find me/follow me call intercept

FAX MAIL

Electronic fax sending
Fax auto-delivery to email
Fax auto-delivery to fax machine
Fax delivery to fax machine
Fax message deposit
Fax message retrieval

Never-busy fax

EMAIL INTEGRATION

Client integration
Email auto delivery
Email integration
Email synchronization
Fax attachment in email (.tif or .pdf formats)
Unified inbox for Domino on Windows
Voicemail POP3/IMAP4 client integration

IP MESSAGING ADMINISTRATION

Administration of all parameters through X-terminal interface
Class of service administration
Company/division administration
Export mailbox/COS
Import mailbox/COS
IMAP SSLv3 support
IP messaging Web portal
Mailbox administration
Mailbox on-the-fly
Mailbox un-login
Multiple administration
Multiple language support
Multiple permission levels
Pager templates
Send-user groups
Support for multi-language voicemail
Telephone user interface (native)
Telephone user interface (traditional)
Time zones
Upload audio files via Web interface
VPIIM support

IP MESSAGING MANAGEMENT

System alarms
System backup
System restoration
System status

LANGUAGE SUPPORT

Chinese (Mandarin), Dutch, English (Australian, UK and US), French (Canadian and Parisian), German, Italian, Korean, Portuguese (Brazilian), Russian and Spanish (Castilian and LAT)

HP VCX Connect 200 Unified Communications Series accessories

Modules

HP VCX V7005/VCX Connect 200 DL120 G6 250G 3.5
Spare RAID Disk (JC521A)

License

HP VCX Business IP Phone License (JE427A)
HP VCX Basic IP Phone License (JE426A)
HP VCX Third Party IP Phone License (JE444A)
HP VCX Business IP Phone License 50 Bundle (JE332A)
HP VCX Basic IP Phone License 50 Bundle (JE329A)
HP VCX Business IP Phone License 250 Bundle (JE331A)
HP VCX Basic IP Phone License 250 Bundle (JE328A)
HP VCX Business IP Phone License 1000 Bundle (JE330A)
HP VCX Basic IP Phone License 1000 Bundle (JE327A)
HP VCX Entry/Analog Phone License (JE425A)
HP VCX IP Messaging Seat License (JE301A)
HP VCX IP Messaging Seat License 50 Bundle (JC515A)
HP VCX IP Messaging Seat License 250 Bundle (JC514A)
HP VCX IP Messaging Seat License 1000 Bundle (JC513A)

HP VCX Desktop Communicator Standalone Soft Phone
License (JE435A)
HP VCX Desktop Communicator Outlook Edition Standalone
Soft Phone License (JE436A)
HP VCX Desktop Communicator to Outlook Edition Upgrade
Soft Phone License (JE437A)
HP VCX Desktop Communicator Soft Phone License 50
Bundle (JE334A)
HP VCX Desktop Communicator Outlook Edition Soft Phone
License 50 Bundle (JE336A)
HP VCX Desktop Communicator Soft Phone License 250
Bundle (JE333A)
HP VCX Desktop Communicator Outlook Edition Soft Phone
License 250 Bundle (JE335A)
HP VCX Convergence Center Client Standalone License
(JE434A)
HP VCX ACD Agent License (JE422A)
HP VCX ACD 5 Agent License (JE424A)
HP VCX ACD 10 Agent License (JE423A)

To learn more, visit www.hp.com/networking

© Copyright 2010 Hewlett-Packard Development Company, L.P. The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

Intel and Xeon are trademarks of Intel Corporation in the U.S. and other countries. Microsoft and Windows are U.S. registered trademarks of Microsoft Corporation.

4AA3-0829ENW, Created August 2010

